# VOLIMET: A Parallel Corpus of Literal and Metaphorical Verb-Object Pairs for English—German and English—French

**Prisca Piccirilli[1,2] & Alexander Fraser[2,3] & Sabine Schulte im Walde[1]**
*[1]Universität Stuttgart, [2]Ludwig-Maximilians-Universität München, [3]Munich Centre for Machine Learning*
{prisca.piccirilli,schulte}@ims.uni-stuttgart.de, fraser@cis.lmu.de

The interplay of cultural and linguistic elements that characterizes metaphorical language poses a substantial challenge for both human comprehension and machine processing (Tong et al., 2021). This challenge goes beyond monolingual settings and becomes particularly complex in translation, even more so in automatic translation. Metaphors are indeed not only very flexible in their structures and meanings, but they also strongly depend on the involved languages and cultures (Schäffner, 2004; Kövecses, 2010).

A key requirement for automating the translation of metaphors through machine translation (MT) systems is the availability of substantial training data, which remains limited. Moreover, limited MT research explores the specific phenomenon of **metaphors** and even less so the **contrast between metaphorical and literal language in translation** and its potential effect on translatability (van den Broek, 1981) and variability (Tong et al., 2021) in language production and generation.

To bridge this gap, our work focuses on the creation of a parallel corpus containing contrastive metaphorical and literal uses of verb-object (VO) pairs, e.g., *tackle/address question*. We present VOLIMET, a valuable resource enhancing the advancement of MT systems which exhibit greater sophistication in handling metaphors. This corpus provides insights on the translation of metaphorical VO pairs and their corresponding literal paraphrases from the source language (SL) – English, to our two target languages (TL) – French and German.

On one hand, the parallel nature of our corpus enables us to explore monolingual patterns for metaphorical vs. literal uses. On the other hand, we investigate the variability in German and French translations as well as the extent to which metaphoricity and literalness in the SL are transferred to the TLs.

Monolingually, our findings reveal clear preferences in using metaphorical vs. literal VO pairs. Cross-lingually, we observe a rich variability in translations and different behaviors in metaphoricity/literalness transfer between our two TLs.

**References:** • Broeck, R.V. (1981). The Limits of Translatability Exemplified by Metaphor Translation. *Poetics Today* 1(4), 73–87. • Kövecses, Z. (2010). *Metaphor: A Practical Introduction*. 2nd edition., New York: Oxford University Press. • Schäffner, C. (2004). Metaphor and Translation: Some Implications of a Cognitive Approach. *Journal of Pragmatics* 6(7), 1253–1269. • Tong, X. & E. Shutova & M. Lewis. (2021). Recent Advances in Neural Metaphor Processing: A Linguistic, Cognitive and Social Perspective. *Proceedings of NAACL*, 4673–4686.